Ft. Wainwright Former Communications Site, RI Scoping Meeting

ATTENDEES: Cristal Fosbrook/Army DPW

Therese Deardorff/Army DPW

Julie Sharp-Dahl/USACE

Joe Malen/Army Joe King/AEC

Jacques Gusmano/EPA

Sharon Richmond/ADEC Earl Crapps/ADEC Cory Hinds/CH2M HILL Tim Gould/CH2M HILL Beth Astley/CRREL Rielle Markey/Army

FROM: CH2M HILL

DATE: April 17, 2007

PROJECT NUMBER: 357465

The following is a summary of discussion:

Introduction/Schedule. Cristal opened the meeting starting with a discussion of general schedule and plan. The # 1 priority is human health, #2 priority is housing occupancy. The hope is to be able to move to a ROD at the end of 2007, hopefully don't need a second field season. A preliminary technical memo would be produced at the completion of the 2007 field season, using the RI report outline.

Data Quality Reviews. There will be four levels of data quality review: CH2M HILL will review quality of all data; USACE conducts a data usability assessment; ADEC does data review; and EPA's subcontractor also reviews data and the risk assessment. USACE will generate performance evaluation (PE) samples. CH2M HILL will add this to the work plan. It was suggested that ADEC use electronic COELT data files for their data validation. May need to feed ADEC the lab reports as soon as they come out to accommodate review time. The new ADEC QA checklists help speed this process. ADEC will not be reviewing COELT files.

New Army Findings. Cristal, Therese, and Beth recently reviewed historical records for the joint command Army/Air Force. Jacques stated that this records review is important because if we don't have records, we need to be more conservative, i.e., metal may be indicative of contamination and you have to sample for many contaminants of concern at all locations. Jacques has put in a request for assistance through federal channels.

All agree: the presence of MEC or potential UXO would mean massive remedial efforts. Chemical contamination may not require removal/remediation if there is no risk. Can we determine which area the MEC are expected? Historical records detail what was taken to the salvage yard. Indications are that former salvage yard (FCS Area A) received salvage materials similar to the Arctic Surplus salvage yard. Jacques would like to see integration of all information related to MEC: borings showing breakdown products, geophysics, and

Comment: The schedule says a ROD by 2009. I suggest rewording this to indicate that we are attempting to get the field work/removal actions completed in one year but, realistically, it will likely take 2 or more seasons.

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Comment: Data validation should also include a review of raw data not just the electronic data. Consistency between the electronic and raw data should be checked at least. Also, someone shoulf be reviewing TICs.

Comment: Define MEC and UXO

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records search. This should be assigned to CH2M HILL as part of the RI. The historical records show that the site subareas (A,B,C,D,E...) roughed out in 2005 are still valid.

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Records indicate that chemical-type materials were present in the interior of Alaska; troops were set to protect interior Alaska. This included gas masks, smoke, etc., no exotic items. Records indicate that there was no mass testing of chemical materials at Ladd Air Force Base.

Comment: Please define exotic items

Comment: May want to discuss significance of Ladd AFB to Taku.

Update on Geophysical Investigation. A figure was handed out showing results from the March/April 2007 EM61 survey. Black rectangles are areas where GPR was performed, results not yet processed. The survey indicates the following by geophysical subarea:

- Area 1. No real anomalies at the school, the EM61 response was attributed to playground
 equipment. There is one anomaly that CRREL will go back and check with other
 methods.
- **Area 5.** Obvious area of burial. Results indicate that there may be something buried deep in the berm. Higher anomalies were located closer to the FCS site. The survey could not be conducted in areas with trees.
- Area 4. Small anomalies, nothing to suggest burial trench. Could not survey soil piles; they will be surveyed by hand.
- **Area 7.** Confirmed multiple anomalies.
- Area 12. Confirmed multiple anomalies.
- **Area 2.** Drainage ditch runs through it (8' deep); could not run EM.

The EM spacing was approximately 1.5 meters, the width of one snowmachine. Beth is looking to filter out utilities to make the figure more readable. Areas of concern were surveyed with GPR. Lots of buried metal was located. The plan is to finish geophysical investigation this summer (2007), to include Area 5 trees, Area I1, I2, Areas 8 and 9.

Investigation of Former River Channel (Slough). There was discussion of the need to explore the characteristics of the material in the former slough. The thought is that the slough may be a conduit for contaminant migration. Groundwater quality and materials should be investigated in the former slough. The following dates were noted from photo research:

- 1954 slough partially filled in
- 1956 slough is filled

It was agreed that the former slough should be investigated at entrance and exit, and at source areas.

Building 49. Participants discussed what to do about this building, given the discovery of buried drums. Discussed the question of whether we should do a removal action or an investigation. If they stay, need lots of investigation: geophysics and checks for chemical contamination (e.g., is it there? Will it move?) It was agreed that we would check for chemicals first and quantify risk. It may be OK to leave metal in the ground. Need to demonstrate that buildings need to come out. Check what is in the drums, then decide whether to demolish the house. If it is relatively clean, keep it. I was under the impression

that if there are drums under houses, they need to come out because we can't determine if drums are intact without examining them. If intact drums finally rupture, then they could pose a future risk. The possibility of leaving metal under houses would be a separate decision, depending on what kind of metal.

Consider using trenches instead of borings around the buildings. As part of the RI, we need to interview John Wentz/USACE (Julie will handle this) to find out what was buried or what the conditions were of the foundation. Look at Shannon & Wilson photos and field notes. The construction digging ban will remain in place. This is not applicable to RI activities. When digging trenches, need extra effort on documentation. Good descriptions of what the metal being removed and take pictures of ALL the side walls (north, south, east, west) – this is the main way that we communicate out to the team because they can't be there.

Building 48. Significant metal removed during construction. Contractor had to get a larger excavator.

Buildings 21, 23, 24. Area A1 – known munitions disposal area. Is Area A2 also a munitions disposal area? Doesn't seem like it to Cristal. Jacques' point is, 'why can we say that?' We need a focused effort in the RI in order to make these statements. Need to include a section on munitions history, use, techniques, disposal. Include photos, records, field notes, wells, etc.

Site subdivision. Keep existing subareas (A,B,C,D,E,F,G,I,J) until we have reason not to. Numbers are just for geophysical results. Check and limit COCs by subarea, from PSE 1 report (should be PSE2). EPA requested that we not cut back the COPC list, even if there were non-detects. DEC also requested that COPCs not be omitted. Please see general comment below. Cristal to confirm COPCs and CSMs for each subarea with ADEC and EPA. Revisit CSMs for each subarea in the RI management plan, to include only completed pathways. Should also consider potentially completed pathways.

Storm Water from PCB Area. The snow is almost gone; no evidence of runoff from the PCB site. Joe will handle this.

Summer Dust Control. There is a solid crust on the soil piles. DPW is required to inspect housing, dust control will be required.

Fencing. DPW will maintain the perimeter site fencing. CH2M HILL may end up maintaining the exclusion zone fencing. Joe has control of exclusion zone fence, he has the key.

DRMO Soil Piles. These are POL contaminated soil piles were originally staged outside the fence during construction near the PX gas station. They contain DRO with DDT and/or pentochlorophenol. They have been sampled multiple times, and need disposal. Participants discussed whether soil can be thermally treated. Julie will send the data to Joe Malen. CH2M HILL needs to keep track of the disposition of this soil during the RI. Write it into the chronology of the site, which will mirror the newsletter from Therese.

Preliminary Scoping: CH2M HILL presented a proposed sampling strategy. A summary of discussion is as follows:

Comment: Concur. There is no way to make a risk statement when there is a potential contaminant source left in place.

Comment: Concur. COPCs list should remain as comprehensive as possible. Also, highly recommend reporting of TICs tentatively identified compounds. Note, this means someone will need to look at the raw data to evaluate TICs.

- Indoor Air. The purpose of this sampling is to quantify indoor air inhalation risk. Single sample at each building except at locations for which we know there are contaminants already (e.g., POL at Buildings 1 14). Check chlorinated data and add samples at any buildings with possible contamination. The Army requested that we take more samples rather than less. Indoor air sampling within buildings was discounted for the time being due to interferences from the new construction material. It could potentially be investigated in the future. We should insert a sentence stating that DQOs for indoor air (and all other investigations) will be defined and screening levels proposed in the RI Management Plan. Adding a statement to this effect could provide documentation that we were thinking about this.
- **Surface Soil Sampling.** The purpose of this sampling is to quantify risk from direct dermal exposure. We also need to consider inhalation/ingestion of fugitive dust depending on the COPCs and future land use and activities (landscaping/pavement). We also need to make the distinction that the MI sampling is to identify areas requiring additional investigation; the State has not determined that MI sampling can be used to quantify risk. It was agreed that there appears to be pretty limited surface contamination. I would rewrite this sentence to state that, based on previous surface soil sampling results, we do not expect that there is substantial surface soil contamination but we agreed that it was a data gap (reason for doing MI sampling). Jacques states that the concerns are RDX and munitions, the conceptual site model is that this was a solid debris landfill, with the exception of the PCBs. Cristal stated that material has subsurface and surface material has been mixed. Complete removal actions, and then sample surface soil. It was agreed that we would use multi-incremental sampling approach and increase the number of subsamples per building to 30. Analyze one MI sample per building. Expect to find DRO, maybe low levels of PCBs. Take a look at COC list and come up with rationale for the COC list we would recommend for the surface soil sampling. Don't sample for explosives on west side unless MEC/DMM/UXO is discovered. Add dioxins/furans on west side, at PCB areas.

Comment: This needs to be clarified. Results compared to Method 2 levels or actually calculate risk?

Comment: This needs to be resolved.

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• **Groundwater.** Proposed one direct push grab sample at each building. Purpose is primarily nature and extent, not ingestion risk. —We can't say this until the data are evaluated.

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- **Subsurface Soil.** Proposed one subsurface soil sample at each building. Consider drive points around the perimeter of Area A. Or trenches. Modify COPCs for each source area. Army requested that we err of the side of conservativeness. I agree. One subsurface sample per building seems insufficient.
- **Groundwater Monitoring Wells.** Several preliminary monitoring well locations were presented based on EPA comments on the PSE 1 and PSE 2 reports. It was agreed that monitoring wells would be located based on results of the direct push groundwater grab samples. This could mean a few more drive points than just the 64 to help position the monitoring wells. Need to pick a good upgradient well location.
- **Sample Soil Berms.** It was agreed to sample soil berms (the perimeter sound berm) using multi-increment sampling, 30 samples per composite, for each 25 meter section of the berm. The fence may put the berm outside the fence. Sample anyway. No mention of depth sampling. One depth sample per 25 meters was discussed but seems inadequate.

- **Sediment in Drainage Swale.** It was agreed to take a sample of sediment from the hay bale just off the site. If this is clean, we are done. If we get a hit, move 50' downsteam and take another sample.
- **Large Scrap Areas.** It was agreed to wait until the geophysics is complete before finalizing plans for intrusive investigation in these areas.
- Confirm Safety of Base Drinking Water Supply. Do not look at the treatment works, look at the data from the raw water chemical sampling and compare the analyte list to our COC list and see if there are any recommendations for additional sampling for the treatment plant. The Army will look into adding perchlorate to the list of analytes. There is no commercial lab that runs SW8095, USACE is looking at another method. CHPPM may have a method. We are looking for RDX to locate a potential source, not because we think that RDX might be in the drinking water. For RDX to be detected, would need a large source, not yet found. Not a high probability of being found.

• PCB removal action. There are five discrete areas of PCBs considered for removal at Building 52. CH2M HILL will provide sampling to guide excavation progress and closure support by sampling the hole(s) for closure. Emerald will do all disposal sampling. Sample for PCBs, dioxins, dibenzofurans, and chlorinated solvents. The OU4 RI has TEQ value for dioxins/furans – below Region 3. My understanding is that we should be using Region 6 residential PRGs. As PCBs concentrations drop, dioxin concentrations drop. Consider a correlation between PCBs and dioxins.

- Background metals. Use Region 6 and Region 3 numbers. Not clear why Region 3 and Region 6 numbers are referenced here. Will use existing background metals study for Wainwright, which includes background levels of arsenic, barium, cadmium, chromium, and lead.
- **Soil piles on the site.** The soil piles need disposal. Propose a strategy for doing soil pile sampling. There is some pentachlorophenol. See Shannon & Wilson report. Herbicides were used at the site; insecticides were used in treated wood. Don't use multi-incremental sampling. Why were we not using MI? Seems like it's a good option.

Chemical Warfare Material. Julie talked to the USACE CX: potential CWM includes white phosphorus, mustard gas, and lewisite. Breakdown products from these materials may be associated with Area A, not in all source areas. For soils, we would include two breakdown products (1,4-thioxane, and thiodiglycol). Plan to run 8270 targeting COPCs and the two TICs above. Also look in groundwater.

MEC Safety Plan. CH2M HILL recommended that the Army put in place an explosives safety submission (ESS) in order to preserve our schedule should a live munition or intact CWM be found. Joe King will check the consequences of establishing an ESS. Ft. Wainwright has procedures in place in case MEC/CWM is found, but this is not an ESS. A conference call is planned between Huntsville CX, Joe King, and CH2M HILL ordnance people.

Construction Spills. There were several diesel spills during construction that were not cleaned up because of dig restrictions. Julie to send CH2M HILL a report on this. This topic needs to be captured in the RI report.

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Comment: Correct. Use Region 6 PRGs

Comment: What is the purpose of this statement?

Comment: We should not use Region 3 & 6 background numbers, but Wainwright levels instead.

Comment: Make sure we get the full TICs report.

N. Wind Groundwater Sampling. NWI will be conducting one more round of groundwater sampling this spring. GRO/DRO/RRO, VOC, SVOC, pesticides, metals, PCBs (all wells, one round), explosives, perchlorate, herbicides, CWM breakdown products. Areas with metals, sample for everything. Julie will send CH2M HILL the final list, as it will be the same for the RI.

Comment: Recommend including TICs

Geophysics. General methods in the work plan. Then separate technical memos describing results to be included in the RI report.

Area A Removal. Two possible approaches: 1) take it all out because we don't know what's there, or 2) sample chemicals around the edges (borings). For approach #1: excavate as much as you need to backfill and make grade for drainage. Implement long term monitoring to protect groundwater. RA option 1: place geotextile to prevent movement due to heave. RA option 2: capping – make it a parking lot. Depth of excavation based on depth of frost. For RI, get as close as possible to metals areas with wells, borings, assess the chemical risk. Removal of all metal debris is preferred. Other options can be considered as more information is acquired. Given the extensive quantity of debris, I think debris removal should begin sooner rather than later, especially since some of it has to come out regardless of whether it's hazardous. This could help us better understand what we're dealing with. Prefer starting this summer.

Comment: No way to adequately characterize buried debris unless its dug up.

ACTION ITEMS FROM 4/17

#	Action item	Responsible Party	Status	
1	Add discussion of the USACE-provided PE samples to the QAPP	CH2M HILL/Hinds	In RI management plan	
2	Consider using USACE COELT electronic deliverable to speed data validation	ADEC/Richmond	Not preferred	
3	Feed ADEC lab reports as soon as they are out to accommodate review time	CH2M HILL/Hinds	Possibility of having data reviewed by another party—requires additional discussion.During RI	
4	Integrate all information related to MEC as it related to specific site subareas. Include a section on munitions history, use, techniques, disposal.	CH2M HILL/Hinds	In RI report	
5	Complete processing of March/April 2007 GPR data	CRREL/Astley	In progress. To be completed after May 15.	
6	Complete site geophysical surveys	CRREL/Astley	Summer 2007	
7	Complete geophysical work plan for inclusion in RI Management Plan. Send to CH2M HILL (Hinds).	CRREL/Astley	In progress	
8	Interview John Wentz to find out what was buried or what conditions were under the building foundations.	USACE/Sharp-Dahl	During RI	
9	Take a look at COPC list and come up with rationale for the COPC list we would recommend for the RI sampling for each subarea. Check and limit COPCs by subarea, from PSE 1 report.	CH2M HILL/Hinds	In RI management plan	
10	Confirm COPCs and CSMs for each subarea with ADEC and EPA	Army/Fosbrook		
11	Dust control during housing inspections	Army/Malen	Ongoing	
12	Maintain exclusion zone fencing	CH2M HILL/Hinds	During RI	
13	Send DRMO soil pile data to Joe Malen	USACE/Sharp-Dahl	Provided to Joe on 4/20/07	
14	Track disposition of DRMO soil in the RI report.	CH2M HILL/Hinds	In RI report	
15	Implement planning for RI sampling strategy as summarized above.	CH2M HILL/Hinds	In RI management plan	
16	MEC safety plan – set up conference call to review/discuss	USACE/Sharp-Dahl	Done.	
17	Send CH2M HILL a report on construction spills (Waterson)	USACE/Sharp-Dahl	Done.	
18	Send CH2M HILL the final list of groundwater COPCs.	USACE/Sharp-Dahl	Done. Received 5/2/07	

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2	Consider using USACE COELT electronic deliverable to speed data validation	ADEC/Richmond	Not preferred

Meeting Agenda Former Communications Site (a.k.a. Taku Gardens)

4/17/2007 0800 EPA Conference Room 526A Federal Building, 5th Floor, Anchorage

Cristal Fosbrook/Army Jacques Gusmano/EPA

Joe Malen/Army Sharon Richmond/ADEC

Therese Deardorff/Army Cory Hinds/CH2M HILL
Beth Astley/CRREL Tim Gould/CH2M HILL

Julie Sharp-Dahl/USACE

Agenda Topics					
Safety Moment	Jacques Gusmano	0815			
New Findings from National Archives	Army	0820			
Geophysics Preliminary Findings	CRREL	0900			
Break		1020			
Evaluate Site Subdivision Plan	Army, EPA, ADEC	1030			
Lunch		1145			
Preliminary RI Scoping	CH2M HILL	1315			
Break		1430			
Scoping (Continued)	All	1445			
Schedule	Army	1600			
Adjournment		1700			

Other Information

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ANC/2007-04-17 RI SCOPING MEETING SUMMARY, DRAFT.DOC/071150037

Ft. Wainwright FSC RI – Proposed Sampling Plan

#	Proposed RI Task	DQO #	Suggested Scope	# Samples	Analytical Suite
1	Indoor air	4	Active soil gas sampling adjacent to each building, 8' deep, SUMA canister	64	Halogenated VOCs, petroleum- related VOCs (TO15)
2	Outdoor air	2	Use soil sample results, see #11 below		
3	Surface soil	1,2	One composite sample from 6 locations around perimeter of every building, (0 – 2') Playground areas (5 areas), 10 composite samples of each area, (0 – 2') Include additional samples in open areas to assess risk	64 50 TBD	VOC, SVOC, inorganics, PCBs, pesticides, GRO, DRO, RRO, ordnance compounds, and select metals
4	Groundwater	5	One direct push sample at each building, and additional direct push samples in open areas at locations TBD.	64 direct push grab samples at Bldgs 12 direct push grab samples at other areas, locations TBD	VOC, SVOC, inorganics, PCBs, pesticides, GRO, DRO, RRO, ordnance compounds, and select metals
5	Subsurface soil	1,2	One subsurface sample at each building, at a depth of 10', below high water, co-located with groundwater sample (#12)	64	VOC, SVOC, inorganics, PCBs, pesticides, GRO, DRO, RRO, ordnance compounds, and select metals
6	Install	5	Install monitoring wells	Sample all	VOC, SVOC,

#	Proposed RI Task	DQO #	Suggested Scope	# Samples	Analytical Suite
	groundwater monitoring wells to determine plume boundaries		in the following locations (see EPA comments on PSE 1 and PSE 2 preview): 1. South of Bldg 48, center of site 2. North of MW03, east of Bldg 42 3. North of FCS towards the Chena River 4 5 See also groundwater grab sampling proposed in #12 below.	wells, two rounds	inorganics, PCBs, pesticides, GRO, DRO, RRO, ordnance compounds, and select metals
7	Sample soil berms	2	Surface sampling (0 – 6"), use multi- increment sampling, one composite of 10 samples every 25 m. Subsurface sampling (at approximate half- height of berm), one sample every 25 m.	28 surface and 28 subsurface 700/25 = 28	VOC, SVOC, inorganics, PCBs, pesticides, GRO, DRO, RRO, ordnance compounds, and select metals
8	Sampling of surface soil in drainage swale	3	Surface soil/sediment sampling in the bottom of the drainage swale. One within 50' of FCS boundary, one upgradient from first road crossing, one just upgradient from Chena River	3	VOC, SVOC, inorganics, PCBs, pesticides, GRO, DRO, RRO, ordnance compounds, and select metals
9	Determine extent of large scrap area	5	Use geophysics to evaluate locations and extent of buried debris. Investigate groundwater downgradient of geophysical anomalies using direct push.	TBD	VOC, SVOC, inorganics, PCBs, pesticides, GRO, DRO, RRO, ordnance compounds, and select metals

#	Proposed RI Task	DQO #	Suggested Scope	# Samples	Analytical Suite
10	Confirm safety of base drinking water	5	Install monitoring well between FCS and the potable water production wells (multi depth completion, target one at production well screen depth). Also check analyte list and check existing treatment system.	Two rounds of sampling, each depth	VOC, SVOC, inorganics, PCBs, pesticides, GRO, DRO, RRO, ordnance compounds, and select metals
11	Investigate halogenated solvents	4,5	Active soil gas sampling adjacent to each building and in open areas. 8' deep, SUMMA canister.	64 plus 12 additional	Halogenated VOCs, petroleum- related VOCs (TO15)
12	Support PCB removal action	6	Collect confirmation samples to support removal action. Collect discrete samples from bottom and sides of each removal action area.	TBD	PCBs
13	Evaluate background metals	1,2,3	Use existing background metals data for Ft. Wainwright (arsenic, cadmium, chromium, and lead). Compare RI metals data to the full range of background data.	NA.	Select metals
18	Sample soil piles on site		Surface composite samples, discrete subsurface samples to characterize Same scope as for sound berms: Surface sampling (0 – 6"), use multi-increment sampling, one composite of 10 samples every 25 m. Subsurface sampling	TBD	VOC, SVOC, inorganics, PCBs, pesticides, GRO, DRO, RRO, ordnance compounds, and select metals

#	Proposed RI Task	DQO #	Suggested Scope	# Samples	Analytical Suite
			(at approximate half- height of pile), one sample every 25 m.		
19	Sample stockpiled soil at DRMO		Surface composite samples, discrete subsurface samples to characterize Same scope as for sound berms: Surface sampling (0 – 6"), use multi-increment sampling, one composite of 10 samples every 25 m. Subsurface sampling (at approximate halfheight of pile), one sample every 25 m.	TBD	VOC, SVOC, inorganics, PCBs, pesticides, GRO, DRO, RRO, ordnance compounds, and select metals

General comments

COPCs need to be documented and agreed upon for this investigation. I recognize that individual COPCs were identified in the draft PSE2 but they have not yet been agreed upon. My comment regarding this item in the PSE2 was that no COPCs in any of the methods used should be eliminated. We need to resolve this before work starts.

We recommend that a QAPP be submitted in accordance with the UFP-QAPP guidelines. This should be completed, approved and signed by all parties before additional samples are collected.

Marti and Earl suggested bringing in the Region X risk assessor. It is our understanding that Jack has contracted a risk assessor and is seeking assistance from ATSDR.

Recommend including TICs on future GC-MS analyses (8260 and (8270).

Several of the DQOs sample numbers listed in the table above indicate that there are 64 buildings; there only 55.